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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/591,531	09/01/2006	Frank Pflucker	MERCK-3223	2971
23599 7590 04/03/2009 MILLEN, WHITE, ZELANO & BRANIGAN, P.C. 2200 CLARENDON BLVD. SUITE 1400 ARLINGTON, VA 22201				
EXAMINER SULLIVAN, DANIELLE D				
ART UNIT		PAPER NUMBER		
1616				
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**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

### Office Action Summary

**Application No.**

10/591,531

**Applicant(s)**

PFLUCKER ET AL.

**Examiner**

DANIELLE SULLIVAN

**Art Unit**

1616

**Period for Reply** -- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 29 December 2008.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1,2,5-10 and 13-27 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1,2,5-10 and 13-27 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO/S508)  
Paper No(s)/Mail Date 12/29/2008
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: \_\_\_\_\_

### **DETAILED ACTION**

Claims 1, 2, 5-10 and 13-27 are pending examination on the merits.

#### ***Withdrawn rejections***

Applicant's amendments and arguments filed 12/29/2008 are acknowledged and have been fully considered. Any rejection and/or objection not specifically addressed below are herein withdrawn. However in view of applicants amendments a new rejection is herein set forth.

#### ***Claim Rejections - 35 USC § 112***

The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

Claim 26 rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention. The emulsifier-free emulsion is not clearly disclosed within the specification. The specification states that solutions and emulsions may comprise customary carriers, such as solvents, solubilisers and emulsifiers, for example water, ethanol, isopropanol, oils, polyethylene glycol, etc (page 54, lines 28-32). Therefore, it is difficult to determine what an emulsifier is. Hence, the specification does not

reasonably convey to one skilled in the art what an emulsifier-free emulsion encompasses.

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claim 5-8 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claims 5 and 7 depend on claim 41 which is indefinite. Claim 41 is not a pending claim for examination. It appears that the claims are intended to depend from claim 1 and the 4 was unintentionally left when claims were amended. Nevertheless, clarification is needed. Claims 6 and 8 are rejected as being based on a rejected base claim.

***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1, 2, 5-10, 13-20, 22 and 24-27 are rejected under 35 U.S.C. 103(a) as being unpatentable over Heger et al. (US 2003/0143166) in view of Harivel (WO 03/011238).

### **Applicant's Invention**

Applicant claims encapsulated organic UV filters in powder form, obtained by spray-drying or freeze-drying a dispersion. Applicants also claim a process of preparing the UV filters and compositions comprising the UV filters. Claim 2 limits the dispersion to being aqueous. Claims 5 and 6 specify the filters are encapsulated with capsules having walls which are inorganic, preferably from silica gel or silicon dioxide. Claims 7, 8, 20-21 and 25 further comprise photostabilizers, cosmetics oils and/or antioxidants. Claims 20 and 24 further comprise an additional UV filter selected from octyl methoxycinnamate. Claim 15 specifies that the process may introduce additives before or during the process. Claim 23 limits the size to 10nm to 100nm.

### **Determination of the scope and the content of the prior art**

#### **(MPEP 2141.01)**

Heger et al. teaches aqueous dispersions of organic UV filters, which may be encapsulated (abstract; [0015]). In the process for preparing the dispersions the antioxidants and oils (additives) are added before and during the preparation of the dispersion phase [0106]-[1112]. Afterwards, the UV filters are spray-dried or freeze-dried to obtain a powder [0126]. The particles have a core/shell structure, where the core comprises the UV filter and the shell comprises at least one protective colloid [0022]. Coating materials include silica [0127]. The formulation may include antioxidants and light stabilizing agents (photostabilizers) to protect the UV filters [0039]. The dispersion preferably has a diameter of less than 500 um [0136].

### **Ascertainment of the difference between the prior art and the claims**

**(MPEP 2141.02)**

Heger et al. do not give exemplify encapsulated organic UV filters with capsules having walls built up of an inorganic material, preferably silica, however, the presence of walls is implied. Heger et al. teach core/shell structures wherein the UV filters are the core and the encapsulated filters are coated by silica. Therefore, it is the Examiners position that Heger et al. teach organic UV filters encapsulated by silica gel, since the UV filters are taught to be encapsulated by at least one protective colloid and coating agents include silica. It is for this reason that Harivel is joined.

Harivel teaches aqueous compositions having UV protection properties by the use of UV filters (abstract). UV-B filters include isooctylmethoxycinnamate and other organic filters (page 2, lines 10-12). The hydrophobic UV filters are preferably encapsulated (page 11, lines 21-23). Suitable capsules can have walls made of inorganic polymers, however preference is given to capsules whose walls are made of silica gel (page 12, lines 4-14). Examples 1-6 all include silica capsules.

**Finding of prima facie obviousness**

**Rationale and Motivation (MPEP 2142-2143)**

It would have been obvious to one of ordinary skill in the art at the time of the invention to combine the teachings of Heger et al. and Harivel to encapsulate organic UV filters with an inorganic material, specifically silica. One would have been motivated to encapsulate the UV filters with silica because Harivel teaches organic UV filters that are encapsulated by silica.

Claims 21 are rejected under 35 U.S.C. 103(a) as being unpatentable over Heger et al. (US 2003/0143166) and Harivel (WO 03/011238) in view of Herzog (US 2003/0235540).

### **Applicant's Invention**

Applicant claims the composition as disclosed above with a self-tanning agent.

### **Determination of the scope and the content of the prior art**

#### **(MPEP 2141.01)**

The teachings of Heger et al. and Harivel are disclosed above.

### **Ascertainment of the difference between the prior art and the claims**

#### **(MPEP 2141.02)**

Heger et al. and Harivel do not teach the addition of a self-tanning agent. It is for this reason that Herzog is joined.

Herzog teaches that encapsulated UV filters that may include dihydroxyacetone and erythrulose (self-tanning agents) [0003], [0142] and [0205]. The preparations are for cosmetic use may be formulated as skin-tanning preparations [0213].

### **Finding of prima facie obviousness**

#### **Rationale and Motivation (MPEP 2142-2143)**

It would have been obvious to one of ordinary skill in the art at the time of the invention to combine the teachings of Heger et al., Harivel and Herzog to utilize a self-tanning agent. One would have been motivated to utilize a self-tanning agent because

Herzog teaches that encapsulated UV filters including dihydroxyacetone and erythrulose may be used to obtain self-tanning formulations.

Claims 23 are rejected under 35 U.S.C. 103(a) as being unpatentable over Heger et al. (US 2003/0143166) and Harivel (WO 03/011238) in view of Chaudhuri (WO 03/007906).

#### **Applicant's Invention**

Applicant claims the composition as disclosed above with at photostabilizer of formula V.

#### **Determination of the scope and the content of the prior art**

##### **(MPEP 2141.01)**

The teachings of Heger et al. and Harivel are disclosed above.

#### **Ascertainment of the difference between the prior art and the claims**

##### **(MPEP 2141.02)**

Heger et al. and Harivel do not teach the specific photostabilizer of formula V. It is for this reason that Chaudhuri is joined.

Chaudhuri teaches formula V as a photostabilizer which exhibits antioxidant properties (page 2, lines 25-35).

#### **Finding of prima facie obviousness**

##### **Rationale and Motivation (MPEP 2142-2143)**



It would have been obvious to one of ordinary skill in the art at the time of the invention to combine the teachings of Heger et al., Harivel and Chaudhuri to utilize the specific photostabilizer of formula V. One would have been motivated to utilize the photostabilizer because Chaudhuri teaches the formula is a photostabilizer which exhibits antioxidant properties.

### ***Conclusion***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Danielle Sullivan whose telephone number is (571) 270-3285. The examiner can normally be reached on 7:30 AM - 5:00 PM Mon-Thur EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Johann Richter can be reached on (571) 272-0646. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

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